



**E4**  
CAROLINAS®

**Presentation before the  
South Carolina Public Service Commission  
February 3, 2022**

**Commission Docket: 2021-ND-44-E**

# Participants



**John Morrison**  
President & CEO  
E4 Carolinas



**Hon. Jeffrey S. Merrifield**  
Partner & Global  
Energy Section  
Leader,  
Pillsbury Law &  
Board Chair



**Weston Adams,**  
Partner & Energy  
Practice Group  
Co-Chair,  
Nelson Mullins &  
Board Member



**Bryan Stone**  
President,  
Lockhart Power &  
Board Member



**Bonnie Loomis**  
Managing Director-SC  
E4 Carolinas



# The Carolinas Energy Economy



## NUCLEAR

Largest concentration of generating capacity in the country & nuclear service companies in the world



## HIGHER EDUCATION

More universities with energy education & research than any single state in the country



## RESEARCH INSTITUTES

Globally recognized research institutes engaged in energy research



## UTILITIES

Largest power distribution company in the country plus a public power generator and more than 100 electric cooperatives



# The Carolinas Energy Economy



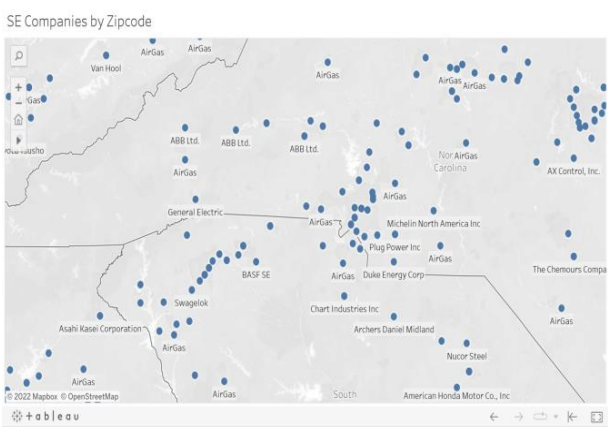
## MANUFACTURING

Largest concentration of energy manufacturing companies in the world.



## ALTERNATIVE FUEL TRANSPORTATION

Significant automotive manufacturing sector that is moving rapidly toward EV production.



## HYDROGEN

One of the top five clusters of organizations with a hydrogen and fuel cell interest in the U.S.



## RENEWABLES

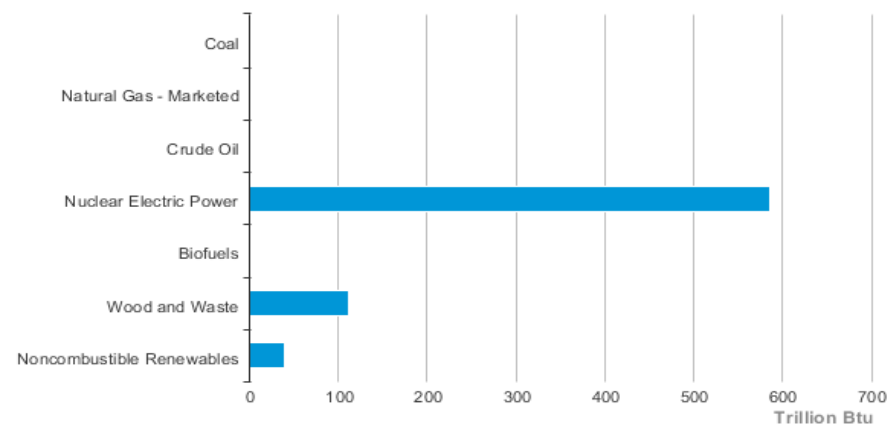
Largest solar energy economy in the Eastern US & world's most-advanced wind-turbine drive train testing facility.



# South Carolina: Energy Profile

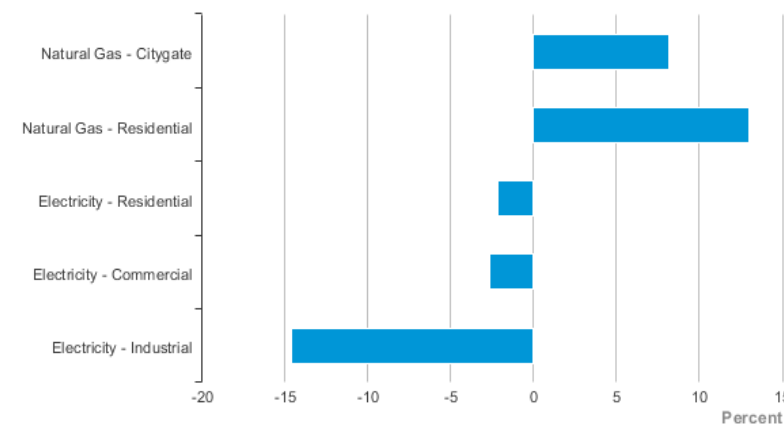
<https://www.eia.gov/state/?sid=SC>

South Carolina Energy Production Estimates, 2019



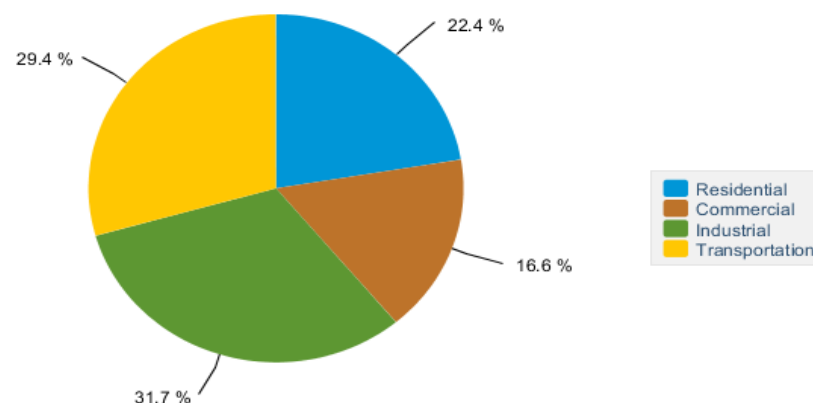
Source: Energy Information Administration, State Energy Data System

South Carolina Price Differences from U.S. Average, Most Recent Monthly

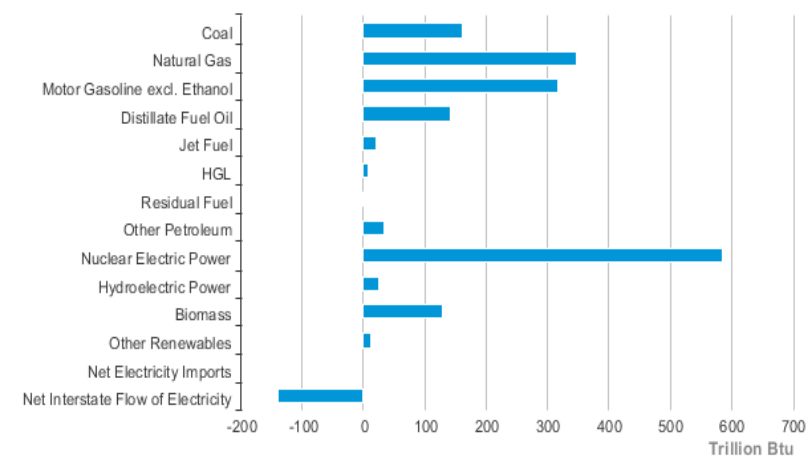


Source: Energy Information Administration, Petroleum Marketing Monthly; Natural Gas Monthly; Electric Power Monthly

South Carolina Energy Consumption by End-Use Sector, 2019



South Carolina Energy Consumption Estimates, 2019



Source: Energy Information Administration, State Energy Data System



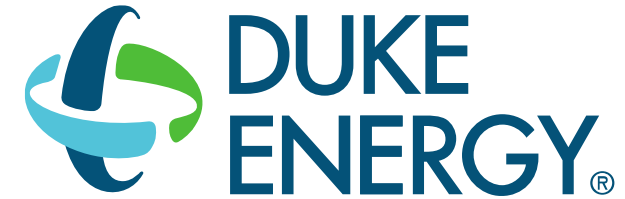
Source: Energy Information Administration, State Energy Data System

## 140+ member companies in all sectors:

- Utilities
- Service Providers
- Manufacturing & EPCs
- Universities & Research
- Innovators & Start-Ups











SIEMENS  
ENERGY

  
**TOKAI CARBON**  
Global Leader of Carbon Materials

TRANE  
TECHNOLOGIES™

  
a xylem brand

framatome

Studsvik

Honeywell



HITACHI

 Westinghouse

***Itron***

MasTec







THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL



# The vision of our Members:

E4 Carolinas envisions the Carolinas attracting and retaining the world's foremost energy companies, leaders and innovators.



## Member-Driven Task Forces:

- Economic Development
- Policy
- Workforce Development
- Communications
- Innovation
- SC Clean Energy Industries



## Member-Informed Research:

- Alternative fuel vehicles
- Grid Hardware
- Green Hydrogen
- Advanced Nuclear Technologies
- Workforce Diversity
- Energy Awareness

# Task Forces

## WORKFORCE DEVELOPMENT

Emerging & Executive Leadership programs  
Leadership Alumni Network  
Energy Bootcamp

## ECONOMIC DEVELOPMENT

Alternative Fuel Vehicles  
Hydrogen  
Grid Hardware  
Energy Storage

## POLICY

Washington D.C. Fly-In  
Energy Briefings and  
Updates  
Energy Policy Summit

Driven  
by  
Members

## INNOVATION

Digital Technology Webinars  
Innovation Conference & Seminars  
Energy Risk Management

## COMMUNICATIONS

Energy Communicators Network  
Energy News Weekly  
Member Networking Events

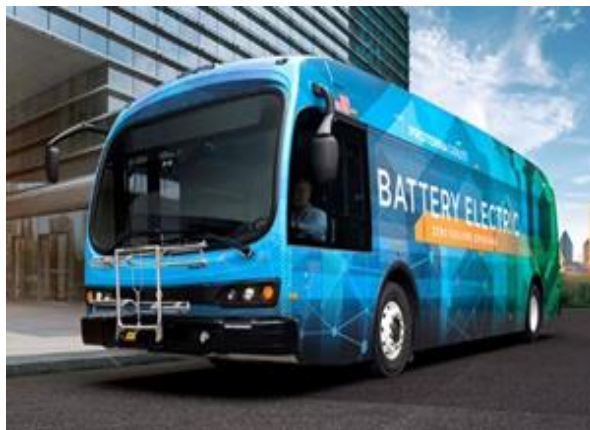
## SC CLEAN ENERGY INDUSTRIES

SC Clean Energy Legislative/Regulatory Update  
SC Clean Energy Conference  
Southeast Energy Law Seminar





# US Department of Energy Grants



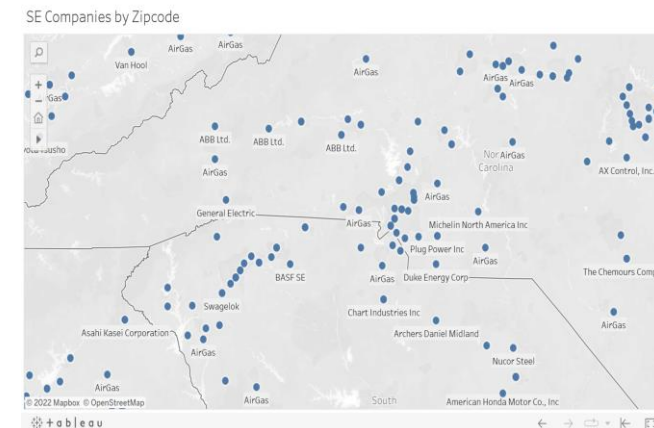
## AFVs & STORMS

Project will enhance Carolinas alternative fuel vehicles (AFVs) fueling & fleet and resilience through planning for the use of AFVs for storm evacuations & emergency response.



## ENERGY HARDWARE CLUSTER

Project will create a regional energy hardware cluster innovation & accelerator ecosystem to enhance commercialization opportunities for energy startups & new ventures originating within an established company.



## GREEN HYDROGEN

Project will identify the green hydrogen energy value chain in the Southeast Region & opportunities for green hydrogen to serve existing and new markets.



# US Department of Commerce Grant



## ADVANCED NUCLEAR TECHNOLOGY ECONOMIC DEVELOPMENT

Project will create a plan for the creation of public-private partnerships, high-quality jobs & capital investment through the advanced nuclear technology industry.

# Corporate & Philanthropic Grants



## CAROLINAS HBCU ENERGY LEADERSHIP PATHWAY

Ground-breaking and transformative program to promote energy careers to HBCU students in order to increase diversity, racial equity and inclusion in the region's energy workforce.



## KEEPING YOU ENERGIZED

Project will produce a resource platform containing short "stories" describing the electric power system and utility business models that have evolved and operate today.





**E4**  
CAROLINAS<sup>®</sup>

**THANK YOU!**

[www.e4carolinas.org](http://www.e4carolinas.org)

# Questions?



**John Morrison**  
President & CEO  
E4 Carolinas



**Hon. Jeffrey S. Merrifield**  
Partner & Global  
Energy Section  
Leader,  
Pillsbury Law &  
Board Chair



**Weston Adams,**  
Partner & Energy  
Practice Group  
Co-Chair,  
Nelson Mullins &  
Board Member



**Bryan Stone**  
President,  
Lockhart Power &  
Board Member



**Bonnie Loomis**  
Managing Director-SC  
E4 Carolinas

